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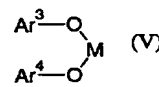
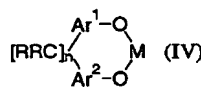
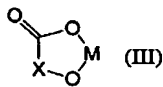
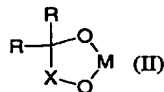
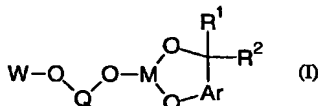
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(54) Title: BIS-CHELATING LIGAND AND USE THEREOF IN CARBONYLATION PROCESSES



(57) Abstract: A novel bis-chelating composition characterized by formula I: wherein M is a Group VB element; R<sup>1</sup> and R<sup>2</sup> are each independently selected from hydrogen and monovalent hydrocarbyl radicals; or R<sup>1</sup> and R<sup>2</sup> are bonded together to form a diradical; or one of R<sup>1</sup> or R<sup>2</sup> is hydrogen or a monovalent hydrocarbyl radical, while the other of R<sup>1</sup> or R<sup>2</sup> is a hydrocarbyl radical bonded to an atom in Ar; wherein Ar is selected from 1,2-arylenes; Q is selected from 1,2-arylenes, 2,2'-bisarylenes and alkyl diradicals; and W is selected from II, III, IV, or V: wherein M is as defined hereinbefore; each R is independently selected from hydrogen and monovalent hydrocarbyl radicals; X is selected from alkyl and aryl diradicals; Ar<sup>1</sup> and Ar<sup>2</sup> are each independently selected from 1,2-arylenes; Ar<sup>3</sup> and Ar<sup>4</sup> are each independently selected from monovalent aryl radicals; and n in formula IV is 0 or 1. The composition finds utility as a ligand in catalysts for carbonylation processes.